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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/697,600	10/29/2003	Darryl D. Amick	MOF 311	7852
23581	7590	05/05/2005	EXAMINER	
KOLISCH HARTWELL, P.C. 520 S.W. YAMHILL STREET SUITE 200 PORTLAND, OR 97204			SEMUNEGUS, LULIT	
			ART UNIT	PAPER NUMBER
			3641	

DATE MAILED: 05/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/697,600	Applicant(s) AMICK, DARRYL D.	
	Examiner Lulit Semunegus	Art Unit 3641	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-43 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20 and 24-27 is/are rejected.
- 7) ☒ Claim(s) 21-23 is/are objected to.
- 8) ☒ Claim(s) 28-43 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>8/2/2004, 5/13/2004</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-27, drawn to a shot slug, classified in class 102, subclass 501.
 - II. Claims 28-43, drawn to a method of forming a shot slug, classified in class 75, subclass 228.

The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the shot slug can be formed by molding.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

During a telephone conversation with David D'Ascenzo on April 28, 2005 a provisional election was made without traverse to prosecute the invention of Group I, claims 1-27. Affirmation of this election must be made by applicant in replying to this Office action. Claims 28-43 withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-10, 15-17, 19, 20 and 24-27 rejected under 35 U.S.C. 103(a) as being unpatentable over Enlow et al (6,439,124) in view of Burczynski et al (6,530,328).

In regards to claims 1, 6, 7, 10, 15-17, 19, 20, 26 and 27 Enlow et al teach it is known to use non lead slug (col. 1, lines 35-36), comprising: a frangible body including: a nose portion configured to first leave a barrel of a firearm from which the slug is fired, and a base portion configured to trail the nose portion through the barrel of the firearm from which the slug is fired, wherein the base portion includes a tapered (64) outer skirt that laterally defines a rear internal recess extending into the body (fig. 7). Enlow et al do not teach the non-lead being tungsten containing component. Burczynski et al teach a shot slug body wherein the body is formed via powder metallurgy from at least a tungsten-containing component (including zinc, tin and iron) and a polymeric binder (tin, col. 3, lines 4-13). At the time of the invention, it would have been obvious to one ordinarily skilled in the art to have a mixture of tungsten containing component and binder instead of pure tin as taught in Enlow et al to decrease unacceptable degree of ricochet because of the hardness of these materials.

In regards to claim 2, Enlow et al teach the body is forward- weighted, with the nose portion containing a majority amount of the body's mass (col. 5, lines 23-25)

In regards to claims 3-5, 8 and 9, Enlow et al teach a nose portion defines a front internal recess extending into the body (62) wherein the front internal recess looks to extend at least 5% to 40% of the slug's length (fig. 7)

In regards to claims 24 and 25, Enlow teaches a shoulder between the nose and base wherein the shoulder defines a plane extending transverse to a central axis of the slug (fig. 5).

4. Claims 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Enlow et al (6,439,124) and Burczynski et al (6,530,328) in view of Mravic (5,894,644).

Enlow et al and Burczynski et al do not teach the slug density. Mravic teaches a slug having tungsten containing component and a binder with a density range between 8-17 g/cc (col. 3, lines 27-39). At the time of the invention it would have been obvious to one ordinarily skilled in the art to have a density range as taught in Mravic since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 233.

5. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Enlow et al (6,439,124) and Burczynski et al (6,530,328) in view of Sczerzenie et al (3,888,636).

Sczerzenie et al teach a tungsten-containing component including specifically nickel. At the time of the invention, it would have been obvious to one ordinarily skilled

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in the art have a nickel-iron-tungsten slug to have a high-density, high ductility and high strength slug.

6. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Enlow et al (6,439,124) and Burczynski et al (6,530,328) in view of Bray et al (6,048,379).

Bray et al teach a polymeric binder which includes a thermoset epoxy (col. 7, lines 12-21). At the time of the invention, it would have been obvious to one ordinarily skilled in the art to include a thermoset epoxy to allow for high volume due to low cost fabrication of these kind of material (col. 6, lines 6-15).

Allowable Subject Matter

7. Claims 21-23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Giannoni (6,182,574) teaches a tungsten-containing powder-based shot slug body including: a nose portion configured to first leave a barrel of a firearm from which the slug is fired, and a base portion configured to trail the nose portion through the barrel of the firearm from which the slug is fired, wherein the base portion includes a tapered outer skirt (fig. 3).

Carr et al (6,805,057) teach a tungsten-containing powder-based shot slug, comprising: a nose portion configured to first leave a barrel of a firearm from which the

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slug is fired, and a base portion configured to trail the nose portion through the barrel of the firearm from which the slug is fired includes an outer skirt that laterally defines a rear internal recess extending into the body; and fired, wherein the base portion wherein the body is formed via powder metallurgy from at least a tungsten-containing component and a binder (col. 5, lines 48-51) .

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lulit Semunegus whose telephone number is (571) 272-6882. The examiner can normally be reached on Mon-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carone can be reached on (571) 272-6873. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Lulit Semunegus
Examiner
Art Unit 3641



MICHAEL J. CARONE
SUPERVISORY PATENT EXAMINER